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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------|-------------|----------------------|---------------------|------------------|
| 10/616,252 | 07/08/2003 | Satoshi Kitamura | SIC-03-017 | 9496 |
| 29863 | 7590 | 08/24/2005 | EXAMINER | |
| DELAND LAW OFFICE | | | GRANT, ROBERT J | |
| P.O. BOX 69 | | | ART UNIT | |
| KLAMATH RIVER, CA 96050-0069 | | | PAPER NUMBER | |
| | | | 2838 | |

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/616,252 | Applicant(s) KITAMURA, SATOSHI | |
| | Examiner Robert Grant | Art Unit 2838 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-3 and 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwaller (US 5,247,430) in view of Mohan (US 5,572,415).

As to Claim 1, Schwaller discloses charging apparatus that charges with voltage from an alternating current bicycle dynamo (figure 1), wherein the charging apparatus comprises: a rectifying circuit for rectifying the alternating current from the bicycle dynamo (Column 3, lines 11-19). Schwaller does not expressly disclose the rectifier configuration as described in claim 1. Mohan discloses a full-wave charging element operatively coupled to the rectifying circuit for charging during both positive and negative half-cycles of a dynamo (Figure 2, element 20); a first half-wave charging element operatively coupled to the rectifying circuit in parallel with the full-wave charging element, wherein the first half-wave charging element charges during positive half-cycles of said dynamo (Figure 2, element D1); and a second half-wave charging element operatively coupled to the rectifying circuit in parallel with the full-wave charging element, wherein the second half-wave charging element charges during negative half-cycles of the dynamo (Figure 2, element D2). It would have been obvious to a person having ordinary skill in the art at the time of this invention to

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combine the bicycle dynamo of Schwaller with the rectifying circuit of Mohan, for the benefit of a more effective charging system.

As to Claim 2, Schwaller in view of Mohan disclose the charging apparatus according to claim 1, and Schwaller further discloses wherein the full-wave charging element comprises a secondary cell (Column 4, lines 55-59).

As to Claim 3, Schwaller in view of Mohan disclose the charging apparatus according to claim 1, Mohan discloses wherein the first half-wave charging element is connected in series with the second half-wave charging element (Figure 2, element 20).

As to Claim 8, Schwaller in view of Mohan disclose the charging apparatus according to claim 1, Mohan discloses wherein the first half-wave charging element comprises a first electrolytic capacitor (Figure 2, element C1).

As to Claim 9, Schwaller in view of Mohan disclose the charging apparatus according to claim 8, Mohan discloses wherein the second half-wave charging element comprises a second electrolytic capacitor (Figure 2, element C2).

As to Claim 10, Schwaller in view of Mohan disclose the charging apparatus according to claim 9, Mohan discloses wherein the first electrolytic capacitor is connected in series with the second electrolytic capacitor (Seen in Figure 2, elements C1 and C2).

3. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwaller in view of Mohan as applied to claim 1 above, and further in view of Hanada (US 6,429,623).

As to Claim 4, Schwaller in view of Mohan disclose the charging apparatus according to claim 1, but they do not disclose where in the charging element is a double layer capacitor. Hanada discloses the benefit of using a double layer capacitor (Column 1, lines 15-21). It would have been obvious to a person having ordinary skill in the art to use the double layer capacitor as taught by Hanada for the benefit of longer service life, in the charging device as disclosed by Schwaller in view of Mohan.

As to Claim 5, Schwaller and Mohan in view of Hanada disclose the charging apparatus according to claim 4, Mohan discloses wherein the first half-wave charging element comprises a first electrolytic capacitor (Figure 2, element C1).

As to Claim 6, Schwaller and Mohan in view of Hanada disclose the charging apparatus according to claim 5, Mohan discloses wherein the second half-wave charging element comprises a second electrolytic capacitor (Figure 2, element C2).

As to Claim 7, Schwaller and Mohan in view of Hanada disclose the charging apparatus according to claim 6, Mohan discloses wherein the first electrolytic capacitor is

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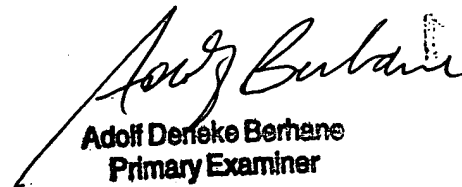
connected in series with the second electrolytic capacitor (Seen in Figure 2, elements C1 and C2).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Grant whose telephone number is 571-272-2727. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RG


Adolf Deneko Berhane
Primary Examiner